

1926, common and attracted to the flowers of *Sambucus ebulus*; these Eclépens specimens apparently belong to the form *saleriana*, Fruhst.

115. *C. satyrioides*, Esp.—Grimmialp: June 24th to July 12th, 1925, common. Arolla: common throughout August, 1925. Les Pleiades: July 2nd, 1926, race *obscura*, Rühl, common. Bérisal: common from July 23rd to the end of August, 1926, and occurring up the Simplon Road as far as the Kaltwasser Gallery (about 6,400 feet). Simplon Dorf: July 27th, 1926, common.

116. *C. pamphilus*, Linn.—Grimmialp: June 23rd to 29th, 1925, common. Evolène: July 29th, 1925. Les Pleiades: September 6th, 1925; July 2nd, 1926. Common around Montreux in September, 1925, and again on June 1st, 1926. Martigny: September 8th, 1925. Les Avants: June 12th, 1926. Eclépens: July 14th, 1926. Bérisal: August 22nd and 24th, 1926, a few on the tenth kilometre, below the Gaunter Bridge; according to Vorbrodt, there is only one brood in the Alps, but these specimens were quite fresh and evidently belong to a second brood.

119. *Nemeobius lucina*, Linn.—Martigny: June 11th, 1926. Les Avants: June 21st, 1926. Les Pleiades: June 24th, 1926. All rather worn.

121. *Thecla w-album*, Knoch.—Eclépens: July 12th and 14th, 1926, common on flowers of *Sambucus ebulus*.

122. *T. ilicis*, Esp.—Eclépens: July 12th and 14th, 1926, in some numbers with *T. w-album*.

(To be concluded.)

Notes from the Cape Verde Islands.

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The Cape Verde Islands are little visited by entomologists, though Darwin's account in the "Voyage of the Beagle" is a classic. There is, as a matter of fact, little to attract the naturalist, for they are of astonishing sterility. But they are familiar enough to travellers, as British boats on the lines to South Africa and South America pass through them and often call at São Vincente, but seldom stop for more than an hour. Many years ago, in 1891, I passed through for the first time, but was unable to go ashore, and had to be content with the splendid sight of two sperm whales swimming up the channel between two islands. In 1913 I passed again and was particularly anxious to get ashore, as my curiosity had been aroused by their original appearance; I had also noted that de Saussure had questioned the identity of a species of *Sphingonotus* recorded from the islands and fresh material was needed. I was told that the boat might stop for an hour only and that it was not possible to go ashore. Then I conspired with the ship's doctor, a most excellent man, capable of appreciating the interest of a scientific problem: he introduced me to the chief engineer and over the walnuts and the wine I told the story of the misunderstood grasshopper. My eloquence was rewarded, for the worthy Scot became quite interested and the consequence was that he required two hours or more the next morning for sundry minor repairs and I got a full hour ashore.

It was not much, however, for a collecting expedition, nor had I net or killing-bottle available, nor even a drop of spirit; nothing but a

small tube and my fingers; moreover, the *Oedipodidae* are nimble creatures and difficult to catch at any time when stimulated to activity by a hot sun. But I enlisted the services of half a dozen little nigger boys and returned on board in triumph, with my tube crammed with kicking and lively grasshoppers. I never had occasion to work them out properly, but I remember that among them was a *Sphingonotus* with no black fascia to the wing, which I took to be *S. caeruleans*, the commonest European species, one of the common red-winged *Acrotylus* and also the pretty yellow-winged species, *A. longipes*, Charp., the latter an African insect which extends its range to the extreme south of Europe.

On neither of the return journeys did we stop, and so, when early in April I called on a Portuguese vessel, I was very glad that we had more business to do, discharging cargo and taking coal, than do the British boats. We arrived in the evening of April 6th and I hurried ashore with my companion, Pavel Stepanovitch Nazarov, the well-known Russian traveller and naturalist. It was a race with darkness and the darkness won; it was impossible to do anything and we returned on board crestfallen in inky blackness. We were due to sail during the night, but owing to some contretemps fortunate for us, we were still in port the next morning and Pavel Stepanovitch and I were able to spend several hours ashore collecting Orthoptera.

This was at the island of São Vicente, which owes its importance to its geographical situation, for it is a submarine cable station and also a very important coaling station and the harbour, which is the drowned-out crater of the old volcano, is always full of shipping. The island consists of very rugged lavas with a sharp and jagged outline against the sky and is absolutely sterile. In the little town there are a few wind-stricken palms and other trees planted in soil imported at great cost. To the south and east of the town there is a flat expanse of the detritus of the rocks and beyond that a range of dunes; this part is exposed to the prevailing wind from the north east which was blowing that day with uncomfortable vigour. The sands are loose and shifting but the Portuguese have planted tamarisks and other shrubs to hold them, with considerable success. We wandered among the tamarisks and moved a fair number of *Oedipodidae*, their coloured wings flashing prettily in the sun when they flitted from spot to spot, but they harmonise so closely with the sand and volcanic ashes that they are difficult to see when settled. The wind was so strong that it was far from easy to catch them with a heavy sweep-net and I was glad to enlist the spontaneous services of an inquisitive and jolly little nigger boy aged about ten, who crawled on his tummy and stalked them with considerable success. We never saw a glimpse of a red wing; the commonest was the *Acrotylus longipes*, Charp. This is a pretty little creature distributed widely in Africa and occurring in a few localities in the extreme south of Europe; I had made its acquaintance in the Transcaucasus and in Macedonia. There were two species of *Sphingonotus*, with pale blue wings, one with no black mark on the wings, like the common south-European *S. caeruleans*, L., but, in fact an apparently local form of *S. rubescens*, Wlk., from the deserts of N. Africa, and one with a well-defined black fascia, which must be *S. canariensis* of Saussure, the species which I wanted but failed to get in 1913. But these species are extremely interesting, as they are very imperfectly known.

There was little other sign of insect-life save a few flies and considerable numbers of a small buff *Micro-Lepidopteron*; it was hopeless to try to catch and preserve specimens of so delicate a creature, armed as I was only with a heavy sweep-net, in that gale, and I gave up the attempt.

At one spot in the midst of the tamarisk grove we came upon a round, flat open space, like an eastern threshing-floor; that it could not be, as there is nothing there to thresh. Pavel Stepanovitch remarked that in the Kirghiz deserts he had seen similar phenomena where there is much salt in the soil, as he thoughtlessly jabbed holes in the level surface with his stick. At that moment I caught sight of a small round hole lined with tin, and it dawned upon me that we were trespassing upon golf links! There is a colony of British at the submarine cable station and as an inevitable consequence, the links. I trust they will pardon the inquisitive but perfectly innocent damage which we did to their dark brown "green."

The forbidding reddish-brown mountains all round have a depressing effect, as they appear to be lifeless and probably are. A more cheerful effect is produced by the relief of a garden where the Portugese authorities, at great expense, have laid out a nursery, and also a hard tennis-court, evidently attributable to the staff of the cable. Here there were numbers of a small bird like a sparrow, while Egyptian vultures soared overhead, sharing with a sooty-necked crow the duties of public scavenger. We sat and rested under the precarious shade of a big tamarind and watched our little black-faced colleague chew great quantities of the bitter fruit, to the great benefit, no doubt, of his internal arrangements.

Pavel Stepanovitch made the interesting observation that similar effects can be brought about from totally different materials when conditions are similar. His first exclamation was that he felt himself back in Turkestan; there were the same naked, uninviting mountains, the dusty sand dunes, wind-battered tamarisks, the hazy sky. The only obvious difference is that there the people are Mahommedans, Sarts and Kirghiz, while here they are mulattoes and negroes. But the deserts of Turkestan are perhaps the most remote spots on earth from any sea, and the sand is derived from palaeozoic rocks, while here we have an oceanic island with sand formed from the lavas of young, though extinct, volcanoes; the tamarisks are of a different species, African instead of Asiatic, but the general resemblance is extraordinarily close.

There are two advantages in being on board a Portugese vessel. In the first place, having local business, they stay longer and make an excursion ashore easier; in the second place they call at other islands where British vessels seldom or never put in. Two hours run from São Vincente brought us to São Thiago. We arrived early in the morning and anchored in a good-sized bay with cliffs of lava enclosing it; it was interesting to see one flow of lava resting on a horizontal surface of pale yellow sand, so there must have been at least two distinct periods of volcanic activity with a considerable interval between them. São Thiago is less lofty than São Vincente and enjoys greater moisture; there is more vegetation; tufts of rank grass can be seen on the cliffs, whereas those of the other island are absolutely barren. The town of Praia, the administrative and ecclesiastical centre of the archipelago, is

situated on a substantial elevation in the middle of the bay, with an extensive palm grove at the foot. The town is pleasantly laid out, well kept, with well-groomed gardens, where the presence of really green turf is evidence of the greater rainfall. Moreover, at São Martini, about half an hour's drive into the interior, there are coffee plantations producing the best berry of any of Portugal's numerous colonies. Unfortunately we were not able to hire a horse and trap, as it was market day and everyone was busy, and so were compelled to abandon our idea of visiting the plantations and to confine our ambitions to a walk outside the town.

After passing another palm-grove and a negro village of stone huts roofed with palm leaves we came upon an open arid plain with a few scattered mimosa trees; the ground consisted only of stones and dust, but there was little animal life there apart from the few goats resting in the shade of the trees. *Acrotylus longipes*, Charp., is the common grasshopper of the island, as it is at São Vincente, and we moved great numbers of them, their bright yellow wings flashing prettily in the sunshine. They are active and it was extremely difficult in that stiff breeze to catch any with the sweep-net. We followed up the dry bed of a desiccated watercourse, where an occasional blue flash revealed the presence of some *Sphingonotus*. I was able to catch one only; it was *S. rubescens*, Wlk., subsp.

So far we had seen no difference in the fauna between the two islands, but soon we flushed a bird that was obviously our first really Ethiopian representative. It was *Halcyon leucocephala* r. *actem*, and a very beautiful creature too; its brilliant deep blue wings and tail glitter brightly in the sunshine, contrasting with the pale grey or dirty white head and shoulders. As it perched on the top of a mimosa it showed the red-brown belly, and its profile was exactly that of a kingfisher. The beak is long, straight and sharp; it was orange-yellow in the first specimen we saw, but in another, which we took for the cockbird, it was bright red and disproportionately long, giving it a clumsy appearance. There was nothing European about him as, indeed, it occurs only on São Thiago and on the Brava of the Cape Verde Islands. I turned over many stones in the hopes of finding some earwigs, but found nothing but quantities of a small black and a small brown beetle.

Presently a tiny flash of pink caught my eye and I picked up a pair of *Pyrgomorpha* sp., a representative of an African genus that extends its range into the southern extremities of Europe. I also found a nymph, so the season here begins several months earlier than in the Mediterranean countries. Then I saw another kind of grasshopper, very numerous, but so active that I despaired of taking one. I caught a glimpse of pink, and thought it must be a *Caloptenus*; it was too slender for the common European species, but might be a local form, corresponding to the *C. vulcanius* of the Canary Islands; then I saw that the red was on the posterior femora, so I thought it must be an *Epacromia*. At length patience was rewarded and I took one, to find to my surprise that it was a male, too big for either of the genera mentioned. It was a *Catantops*, *C. avillaris*, Thnbg., a typically African species already known from the Cape Verde Islands, but not existing in the Canaries. Altogether I took two males and a female. I saw also another large grasshopper, as big as *Anacridium aegyptium*, but they sat on the highest twigs of the mimosas and the mass of tough,

woody branches and sharp strong thorns made it impossible to catch them; when disturbed they flew off actively to a distant tree. Although the *Catantops* occurred frequently enough on the stony hillsides generally, they seemed to prefer the neighbourhood of the nimosas, on which they frequently settled and probably found their nourishment.

It is quite likely that search would reveal other species and in all probability they would have African affinities; very likely representatives of other groups are to be found in the vegetation of the plantation area, though these would be more likely to be imported species. I do not know the age of the islands but they are certainly quite young, geologically speaking; as volcanoes they are dead, though the island of Fogo is not quite extinct and has been in eruption during the past hundred years, as in 1891 a ship's captain told me that many years previously he had seen it showing signs of activity. They must be younger than the Canaries, although Teneriffe is still a quite active volcano, for the latter have developed a very rich and highly characteristic fauna and flora. It is doubtful whether there are any endemic species peculiar to the Cape Verdes, which must have been colonised from the African coast and by insects and other smaller creatures imported in plants. The islands are essentially part of Africa; the brown, naked rocks are quite un-European in appearance and the presence of lofty palms and the mulattoes and often very good-looking creoles of São Vincente and the negroes of São Thiago speak for themselves.

The birds, too, are mostly African; apart from a swift and the kites hawking over the waters of the bay, the other birds we saw are not European; the gorgeous kingfisher is certainly Ethiopian and so must be the very variegated sparrow, quite different from any of our European species of *Passer*; the crows, too, seem different, with sooty hoods like jackdaws, and a raven we saw was smaller than ours, with weaker beak, and a greyish spot on the side of the neck.

It was tantalising not to be able to explore further, nor to visit the interesting island of Brava, but we must be thankful for mercies received and treasure the modest collection that we were able to make.

Nomenclature. Errors II.

NOTE:—My colleague, W. H. T. Tams, points out that I am spelling the name of the author of the *Sys. Nat.* wrongly. That is so, *vide* title page of the *Sys.*

adippe.—**cydippe**. See Report of the British National Committee on Entomological Nomenclature, *Trans. Ent. Soc. Lond.* (1915) and *Ent. Record*, XXVIII., p. 148 (1916). Many entomologists seem still ignorant of this authoritative decision. Frohawk's book uses *adippe*!

latona: *latouia*: *lathona*.—Linnaeus described this species under the name **lathonia**, *Sys. Nat.*, ed. X. p. 481 (1758).

artemis: *aurinea*.—**aurinia**. Rottenburg, *Naturforscher*, VI., 5 (1775) in considering Hufnagel's *Tabellen* (1765) appeals to the work of Geoffroy, *Histoire abrégée*, II., 45 (1764). Both authors mix a number of species under the name *ciuvia*, but the latter perceives that there are